REMARKS

By the present amendment, claims 1 and 9 have been amended to replace "foam entry" by "entry of a foam," claim 7 has been amended to correct "50 m" into "50 μm," and claim 25 has been cancelled without prejudice or disclaimer.

It is submitted that the amendments are related to presentation and does not raise any new issues. Accordingly, entry and consideration of the amendments is respectfully requested.

Claims 1-24 are pending in the present application. Independent claim 1, and claims 2-8, 17-18, and 21-22 dependent directly or indirectly thereon, are directed to an optical film. Independent claim 9, and claims 10-16, 19-20, and 23-24 dependent directly or indirectly thereon, are directed to a liquid crystal display.

As a preliminary, in the Office Action, claim 25 has been withdrawn from consideration as directed to a method of laminating a film.

Claim 25 has been canceled by the present amendment.

Next, in the Office Action, claims 1-24 are objected to. It is alleged that the term "foam" in claims 1 and 9 lacks antecedent basis.

Claims 1 and 9 have been amended to replace "foam entry" by "entry of a foam." Accordingly, it is submitted that the objection should be withdrawn.

Next, in the Office Action, the rejection of claims 1-24 under 35 U.S.C. 103(a) as obvious over US 6,088,079 to Kameyama et al. (Kameyama) in view of JP 09-113727 to Nakajima et al. (Nakajima) has been maintained. In summary, it is admitted in the Office Action that Kameyama does not suggest the flexural rigidity of the present invention, but it is alleged that Nakajima teaches adjusting the flexural rigidity of an optical film, so that the claimed property would have

been obvious optimization "depending on the desired end use of the product."

Applicants respectfully urge reconsideration and withdrawal of the rejection.

As recited in the present claims, the optical film having the recited flexural rigidity according to the presently claimed invention is capable of attachment to a glass substrate without substantial foam entry. This feature of the present claims and its advantage are not taught or suggested, either in Kameyama (as acknowledged in the Office Action) or in Nakajima, because Nakajima focuses on the modulus of elasticity of a protective TAC layer taken alone.

In other words, Nakajima teaches that the modulus of a protective TAC layer can be adjusted, in particular by adjusting its thickness, to improve the manufacture and processing of the TAC layer itself, but Nakajima does not suggest adjusting the flexural rigidity of an optical laminate comprising (i) a polarizing plate having a protective layer on at least one side of a polarizer, and (ii) a brightness enhancement film laminated to the polarizing plate, for the purpose of improving the processing of the optical laminate.

In addition, the TAC film thicknesses suggested in Nakajima teach away from a modulus of elasticity for the laminated optical film as recited in the present claims.

Specifically, Nakajima discloses at para. [0015] that the modulus of elasticity of a TAC film may be adjusted by adjusting the film thickness. Nakajima indicates that, if the TAC film is too thin, wrinkles are easily generated at the time of processing the TAC film, and if the TAC film is too thick, there are drawbacks in terms of "size... weight, flexibility, transparency, and manufacturing costs." Thus, Nakajima teaches that a thickness of 50 to 80 microns is "desirable," a thickness of 60 to 77 microns is preferable, and a thickness of 70 to 75 microns is even more preferable.

Turning to Kameyama, Kameyama discloses the following thickness ranges:

- Cholesteric layer base: 500 microns or smaller, preferably 5 to 200, more preferably 10 to 100 microns (col. 5, lines 50-54), exemplified at 50 microns (Example 1)
- Cholesteric layer: 50 microns or smaller, preferably 0.5 to 20, more preferably 1 to 10 microns (Col. 5, lines 64-66), exemplified at 4x1.5=6 microns (Example 1),
- Retardation layer (quarterwave plate): 5 to 500 microns, preferably 10 to 300, more preferably 20 to 200 microns (col. 10, lines 40-43),
- Polarizing film: 5 to 80 microns (col. 11, line 29),
- Protective layers: 1 mm or smaller, preferably 500 microns or smaller, more preferably 1 to 300 microns (col. 11, lines 55-57),
- Adhesive layer: 1 to 500 microns, preferably 2 to 200, more preferably 5 to 100 microns.

Further, Example 1 of Kameyama indicates the following thicknesses:

- Base TAC film: 50 microns
- Cholesteric layers: 6 microns

No thicknesses are provided for the retardation layer (quarterwave plate), adhesive layer, and polarizing plate, but since Kameyama uses values selected in the middle of the ranges indicated in the description, corresponding thicknesses would be approximately as follows:

- Quarterwave plate: 100 microns
- Adhesive layer: 100 microns
- Polarizing film: 40 microns
- Protective layers: 2x150 microns

In view of the above, even if, arguendo, a person of ordinary skill in the art attempted to apply the teachings of Nakajima in the construction of Kameyama, that person would select a protective layer having an appropriate modulus of elasticity as taught in Nakajima, for example by adjusting the thickness of the TAC film and protective layers to the preferred values as taught in Nakajima, i.e. 70 to 75 microns. In that case, the optical element of Kameyama would have the following adjusted thicknesses:

- Base film: 70 microns
- Cholesteric layer: 6 microns
- Quarterwave plate: 100 microns
- Adhesive layer: 100 microns
- Polarizing film: 40 microns
- Protective layers: 2x70 microns

Thus, the adjusted thickness of the optical element of Kameyama would be 70+6+100+100+40+70+70= 456 microns with the base film or 386 microns without the base film. These values correspond to the thicknesses disclosed in Comparative Examples 1 and 2, respectively 425 and 380 microns (see page 13, lines 3 and 12), which result in a high flexural rigidity and substantial foam entry upon attachment to a liquid crystal cell (see Table 1 on page 14).

In addition, even if, arguendo, a person of ordinary skill in the art was motivated to modify Kameyama by adopting the lowest thickness for the protective layer suggested in Nakajima, i.e., 50 microns, the adjusted thickness of the optical element of Kameyama would be 396 microns with the base film or 346 microns without the base film. These values correspond to the

thicknesses disclosed in Comparative Examples 2 and 3, respectively 380 and 340 microns (see page 13, lines 12 and 21), which again result in a high flexural rigidity and substantial foam entry upon attachment to a liquid crystal cell (see Table 1 on page 14).

In summary, Nakajima may have recognized certain advantages in connection with adjusting the modulus of elasticity of a protective TAC film, but Nakajima does not provide any suggestion or guidance regarding the objectives or the parameters for adjusting the flexural rigidity of an optical element comprising laminated layers (as opposed to a single optical layer). In particular, the parameters for adjusting the modulus of elasticity discussed in Nakajima do not necessarily point to increasing the flexibility, since Nakajima cautions that this may result in wrinkles at the time of manufacture and processing. In addition, Nakajima recommends thickness values (70-75 microns) on the high side of its suggested range (50-80 microns), and further, even the generally suggested range of Nakajima is not appropriate for adjusting the flexural rigidity of an optical film as in Kameyama for the purpose of avoiding foam entry when attaching the optical film to a liquid crystal cell, as discussed above. Therefore, Nakajima fails to teach or suggest any modification of Kameyama that would result in the presently claimed optical film.

In contrast, the present inventors have found that, by adjusting the flexural rigidity of an optical film comprising a polarizing plate having a protective layer on at least one side of a polarizer and a brightness enhancement film laminated to the polarizing plate, as recited in present claims 1 and 9, it is possible to obtain an optical film that can be attached to a liquid crystal cell without substantial foam entry. This feature of the presently claimed invention and its advantage is not taught or suggested in any combination of Kameyama and Nakajima, since Nakajima does not provide any guidance regarding a laminated film, and the guidance for the protective film

alone as provided in Nakajima fails to reduce the flexural rigidity of a laminated film so as to improve its attachability. Therefore, the present claims are not obvious over any combination of Kameyama and Nakajima.

In view of the above, it is submitted that the rejection should be withdrawn.

In conclusion, the invention as presently claimed is patentable. It is believed that the claims are in allowable condition and a notice to that effect is earnestly requested.

In the event there is, in the Examiner's opinion, any outstanding issue and such issue may be resolved by means of a telephone interview, the Examiner is respectfully requested to contact the undersigned attorney at the telephone number listed below.

In the event this paper is not considered to be timely filed, the Applicants hereby petition for an appropriate extension of the response period. Please charge the fee for such extension and any other fees which may be required to our Deposit Account No. 50-2866.

Respectfully submitted,

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